METHOD FOR IDENTIFYING MULTIPLE ACTIVATED TRANSCRIPTION FACTORS

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A method is provided for identifying multiple different activated transcription factors in a cell sample. The method comprises transducing or transfecting a cell sample to comprise a library of constructs. Each construct comprises a cis element sequence including one or more copies of a cis element to which a transcription factor is capable of binding. The cis element sequence varies within the library of constructs and include a promoter sequence 3' relative to the cis element sequence, and a reporter sequence 3' relative to the promoter sequence that comprises a variable sequence that varies within the library wherein a same cis element sequence is employed with a given reporter sequence within the library of constructs. The element sequence forms mRNA transcription products by those of the transduced or transfected cells in which an activated transcription factor is present that binds to the cis element of the construct present in the cell and activates transcription of the reporter sequence of the construct present in the cell, which determine which reporter sequences are comprised within the mRNA transcription products and determine which activated transcription factors are present in the cell sample based on which reporter sequences were transcribed.